

1 WEST VALLEY CITY, UTAH

2
3 ORDINANCE NO. _____

4
5 Draft Date: 09/02/2009
6 Date Adopted: _____
7 Date Effective: _____
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9 AN ORDINANCE REPEALING CHAPTER 18-6 AND VARIOUS
10 SECTIONS IN CHAPTER 18-8 AND AMENDING SECTION 18-1-
11 102 OF TITLE 18 OF THE WEST VALLEY CITY MUNICIPAL
12 CODE REGARDING STORM WATER MANAGEMENT AND
13 ENACTING TITLE 25 REGARDING FLOOD DAMAGE
14 PREVENTION WITHIN FLOOD PLAIN AREAS.
15

16 WHEREAS, Title 18 of the West Valley City Municipal Code regulates and manages Storm
17 Water Management; and

18 WHEREAS, there is a need to remove the flood plain management sections from Title 18 and
19 enact a new Title dedicated solely to flood plain management by enacting Title 25 of the West Valley
20 City Municipal Code; and

21 WHEREAS, enactment of Title 25 is required in order for West Valley City to participate in the
22 National Flood Insurance Program; and

23 WHEREAS, the City Council of West Valley City, Utah, hereby determines that it is in the best
24 interests of the citizens of West Valley City to repeal Chapter 18-6 and various sections in Chapter 18-8
25 and amend Section 18-1-102 of Title 18 of the West Valley City Municipal Code regarding Storm Water
26 Management and enact Title 25 regarding flood damage prevention within flood plain areas;

27 NOW, THEREFORE, BE IT ORDAINED by the City Council of West Valley City, Utah, as
28 follows:

29 Section 1. Repealer. Any provision of the West Valley City Code found to be in conflict with
30 this Ordinance is hereby repealed.

31 CHAPTER 18-6
32 CONSTRUCTION IN FLOODPLAIN AREAS

33 Sections:

34 18-6-101. _____ Stormwater Management Permit Floodplain Requirements.
35 18-6-102. _____ Purpose of this Chapter.
36 18-6-103. _____ Methods of Reducing Flood Losses.
37 18-6-104. _____ Areas to which this Chapter Applies.
38 18-6-105. _____ Compliance.
39 18-6-106. _____ Abrogation and Greater Restrictions.
40 18-6-107. _____ Interpretation.
41 18-6-108. _____ Warning and Disclaimer of Liability.
42 18-6-109. _____ Additional Application Requirements.
43 18-6-110. _____ Responsibilities of the Division.
44 18-6-111. _____ Variance Procedure.
45 18-6-112. _____ General Standards.

18-6-113. ~~Specific Standards.~~

18-6-114. ~~Floodways.~~

~~18-6-101. STORMWATER MANAGEMENT PERMIT FLOODPLAIN REQUIREMENTS.~~

~~The provisions of the Storm Water Management Permit may include, as determined to be appropriate by the Division, the restrictions or requirements set forth in this Chapter with respect to the development of property within designated floodplain areas.~~

~~18-6-102. PURPOSE OF THIS CHAPTER.~~

~~It is the purpose of this Chapter to promote the public health, safety, and general welfare and to minimize public and private losses due to Flood conditions in specific areas by provisions designed:~~

- ~~(1) To protect human life and health;~~
- ~~(2) To minimize expenditure of public money for costly Flood control projects;~~
- ~~(3) To minimize the need for rescue and relief efforts associated with Flooding and generally undertaken at the expense of the general public;~~
- ~~(4) To minimize prolonged business interruptions;~~
- ~~(5) To minimize damage to public facilities and utilities such as water and gas mains; electric, telephone, and sewer lines; and streets and bridges;~~
- ~~(6) To help maintain a stable tax base by providing for the sound use and development of Special Flood Hazard Areas so as to minimize future Flood blight areas;~~
- ~~(7) To notify potential buyers that property is in a Special Flood Hazard Area; and~~
- ~~(8) To ensure that those who occupy the Special Flood Hazard Areas assume responsibility for their actions.~~

~~18-6-103. METHODS OF REDUCING FLOOD LOSSES.~~

~~In order to accomplish its purposes, this Chapter includes methods and provisions for:~~

- ~~(1) Restricting or prohibiting uses that are dangerous to health, safety, and property due to Storm Water or Erosion hazards, or that result in damaging increases in Erosion or in Flood heights or velocities;~~
- ~~(2) Requiring that uses vulnerable to Floods, including facilities that serve such uses, be protected against Flood damage at the time of initial construction;~~
- ~~(3) Controlling the alteration of natural floodplains, stream channels, and natural protective barriers that help accommodate or channel Flood waters;~~
- ~~(4) Controlling filling, Grading, dredging, and other Development that may increase Flood damage; and~~
- ~~(5) Preventing or regulating the construction of Flood barriers that will unnaturally divert Flood waters or that may increase Flood hazards in other areas.~~

~~18-6-104. AREAS TO WHICH THIS CHAPTER APPLIES.~~

~~This Chapter shall apply to all Special Flood Hazard Areas within the jurisdiction of West Valley City.~~

~~18-6-105. COMPLIANCE.~~

~~No structure or land shall hereafter be constructed, located, extended, converted, altered or~~

developed without full compliance with the terms of this Chapter and other applicable regulations.

~~18-6-106. ABROGATION AND GREATER RESTRICTIONS.~~

~~———— This Chapter is not intended to repeal, abrogate, or impair any existing easements, covenants, or deed restrictions. However, where this Chapter and another ordinance, easement, covenant, or deed restriction conflict or overlap, whichever imposes the more stringent restriction shall prevail.~~

~~18-6-107. INTERPRETATION.~~

~~———— In the interpretation and application of this Chapter, all provisions shall be:~~

- ~~(1) Considered as minimum requirements;~~
- ~~(2) Liberally construed in favor of the City, and in furtherance of the purposes set forth in 18-6-102;~~
- ~~and~~
- ~~(3) Deemed neither to limit nor repeal any other powers granted under state statutes.~~

~~18-6-108. WARNING AND DISCLAIMER OF LIABILITY.~~

~~———— The degree of Flood protection required by this Chapter is considered reasonable for regulatory purposes and is based on scientific and engineering considerations. Larger floods can and will occur on rare occasions. Flood heights may be increased by man-made or natural causes. This Chapter does not imply that land outside the Special Flood Hazard Areas or uses permitted within such Areas will be free from Flooding or Flood damages. This Chapter shall not create liability on the part of the City, any officer, or employee thereof, or the Federal Emergency Management Agency for any Flood damages that result from reliance on this Chapter or any administrative decision lawfully made in accordance with this Chapter.~~

~~18-6-109. ADDITIONAL APPLICATION REQUIREMENTS.~~

~~———— In addition to the application requirements set forth in Section 18-2-102, applications for Storm Water Management Permits in Special Flood Hazard Areas may be required to provide such additional information as the Division may require, including, but not limited to, the following:~~

- ~~(1) Elevation in relation to mean sea level of the lowest floor (including basement) of all structures;~~
- ~~(2) Elevation in relation to mean sea level to which any structure has been flood proofed;~~
- ~~(3) Certification by a registered professional engineer or architect that the flood proofing methods for any non-residential structure meet the flood proofing criteria in Section 18-6-112(2); and~~
- ~~(4) Description of the extent to which any watercourse will be altered or relocated as a result of proposed Development.~~

~~18-6-110. RESPONSIBILITIES OF THE DIVISION.~~

~~———— Responsibilities of the Division shall include, but not be limited to:~~

- ~~(1) Permit Review:~~
 - ~~a. Review all City issued development permits to determine that the permit requirements of this Ordinance have been satisfied.~~
 - ~~b. Review all City issued development permits to determine that all necessary permits have been obtained from federal, state, or local governmental agencies from which prior approval is required.~~
 - ~~c. Review all City issued development permits to determine if the proposed Development is located in a Floodway. If located in the Floodway, assure that the encroachment provisions of Section 18-6-114(1) are met.~~

- ~~(2) Use of Other Base Flood Data. When Base Flood elevation data has not been provided in accordance with Section 18-6-109, "Additional Application Requirements," the City Engineer shall obtain, review, and reasonably utilize any Base Flood elevation and Floodway data available from any federal, state, or other source as criteria for requiring that New Construction, Development or Substantial Improvements in Zone A are administered in accordance with Section 18-6-113, "Specific Standards."~~
- ~~(3) Obtain and Maintain Information:~~
- ~~a. Obtain and record the actual elevation (in relation to mean sea level) of the lowest floor (including basement) of all new or substantially improved structures, and whether or not the structure contains a basement.~~
 - ~~b. For all new or substantially improved flood-proofed structures:~~
 - ~~i. Verify and record the actual elevation (in relation to mean sea level) to which the structure has been flood-proofed.~~
 - ~~ii. Maintain the flood proofing certifications required in Section 18-6-109(3).~~
 - ~~c. Maintain for public inspection all records pertaining to the provisions of this Chapter.~~
- ~~(4) Alteration of Watercourses:~~
- ~~a. Notify adjacent communities and the State Division of Comprehensive Emergency Management prior to any alteration or relocation of a watercourse, and submit evidence of such notification to the Federal Emergency Management Agency.~~
 - ~~b. Require that maintenance is provided within the altered or relocated portion of said watercourse so that the Flood-carrying capacity is not diminished.~~
- ~~(5) Interpretation of FIRM Boundaries. Make interpretations, where needed, as to the exact location of the boundaries of the Special Flood Hazard Areas (for example, where there appears to be a conflict between a mapped boundary and actual field conditions). The Person contesting the location of the boundary shall be given a reasonable opportunity to appeal the interpretation as provided in Section 18-6-111, "Variance Procedure."~~

18-6-111. — VARIANCE PROCEDURE.

- ~~(1) Appeal Board:~~
- ~~a. The Board of Adjustment, as established by the City, shall hear and decide appeals and requests for variances from the requirements of this Chapter.~~
 - ~~b. The Board of Adjustment shall hear and decide appeals when it is alleged there is an error in any requirement, decision, or determination made by the Division in the enforcement or administration of the requirements of this Chapter.~~
 - ~~c. Those aggrieved by the decision of the Board of Adjustment, or any taxpayer, may appeal such decisions to the Third District Court, as provided in Section 10-9-708, Utah Code Annotated 1953, as amended.~~
 - ~~d. In passing upon such applications, the Board of Adjustment shall consider all technical evaluations, all relevant factors, and standards specified in other sections of this Chapter, and:~~
 - ~~i. The danger that materials may be swept onto other lands to the injury of others;~~
 - ~~ii. The danger to life and property due to Flooding or Erosion damage;~~
 - ~~iii. The susceptibility of the proposed facility and its contents to Flood damage and the effect of such damage on the individual owners;~~
 - ~~iv. The importance of the services provided by the proposed facility to the community;~~
 - ~~v. The necessity to the facility of a waterfront location, where applicable;~~
 - ~~vi. The availability of alternative locations for the proposed use that are not subject to Flooding or Erosion damage;~~

- vii. ~~The compatibility of the proposed use with the existing and anticipated Development;~~
- viii. ~~The relationship of the proposed use to the comprehensive plan and floodplain management program for that area;~~
- ix. ~~The safety of access to the property in times of Flood for ordinary and emergency vehicles;~~
- x. ~~The expected heights, velocity, duration, rate of rise and sediment transport of the Flood waters, and the effects of wave action, if applicable, expected at the site; and~~
- xi. ~~The costs of providing governmental services during and after Flood conditions, including maintenance and repair of public utilities and facilities such as sewer, gas, electrical, and water systems; streets; and bridges.~~
- e. ~~Upon consideration of the factors of Section 18-6-111(1)(d) and the purposes of this Chapter, the Board of Adjustment may attach such conditions to the granting of variances as it deems necessary to further the purposes of this Chapter.~~
- f. ~~The Division shall maintain the records of all appeal actions, including technical information, and report any variances to the Federal Emergency Management Agency.~~
- (2) ~~Conditions for Variances:~~
- a. ~~Generally, variances may be issued for Developments and Substantial Improvements to be erected on a lot of one-half acre or less in size, contiguous to and surrounded by lots with existing structures constructed below the Base Flood level, provided that items (i) thru (xi) of Section 18-6-111(1)(d) have been fully considered. As the lot size increases beyond the one-half acre, the technical justifications required for issuing the variance increases.~~
- b. ~~Variances may be issued for the reconstruction, rehabilitation, or restoration of structures listed on the national register of historic places or the state inventory of historic places without regard to the procedures set forth in the remainder of this Section.~~
- c. ~~Variances shall not be issued within any designated Floodway if any increase in Flood levels during the Base Flood discharge would result.~~
- d. ~~Variances shall only be issued upon a determination that the variance is the minimum necessary, considering the Flood hazard, to afford relief.~~
- e. ~~Variances shall only be issued upon:~~
- i. ~~A showing of good and sufficient cause;~~
- ii. ~~A determination that failure to grant the variance would result in exceptional hardship to the applicant; and~~
- iii. ~~A determination that the granting of a variance will not result in increased flood heights, additional threats to public safety, extraordinary public expenses; create nuisances; cause fraud or victimization of the public as identified in Section 18-6-111(1)(d), or conflict with existing local laws or ordinances.~~
- f. ~~Any applicant to whom a variance is granted shall be given written notice that the structure will be permitted to be built with a lowest floor below the Base Flood elevation and that the cost of Flood insurance will be commensurate with the increased risk from the reduced lowest floor elevation.~~

18-6-112. GENERAL STANDARDS.

In all Special Flood Hazard Areas, the following standards are required:

(1) Anchoring.

- a. ~~All Development and Substantial Improvements shall be anchored to prevent flotation, collapse, or lateral movement of the structure and must be capable of resisting hydrostatic and hydrodynamic loads.~~

- b. ~~All manufactured homes must be elevated and anchored to resist flotation, collapse, or lateral movement and must be capable of resisting the hydrostatic and hydrodynamic loads. Methods of anchoring may include, but are not limited to, use of over the top or frame ties to ground anchors. This requirement is in addition to applicable state and local anchoring requirements for resisting wind forces. Specific requirements shall include:~~
- ~~i. Over the top ties provided at each of the four corners of the manufactured home, with two additional ties per side at intermediate locations, with manufactured homes less than 50 feet long requiring one additional tie per side;~~
 - ~~ii. Frame ties provided at each corner of the home, with five additional ties per side at intermediate points, with manufactured homes less than 50 feet long requiring four additional ties per side;~~
 - ~~iii. That all components of the anchoring system be capable of carrying a force of 4,800 pounds; and~~
 - ~~iv. That any additions to the manufactured home be similarly anchored.~~
- (2) ~~Construction Materials and Methods:~~
- ~~a. All Development or Substantial Improvements shall be constructed with materials and utility equipment resistant to Flood damage.~~
 - ~~b. All Development and Substantial Improvements shall be constructed using methods and practices that minimize Flood damage.~~
 - ~~c. All Development and Substantial Improvements shall be constructed with electrical, heating, ventilation, plumbing, and air conditioning equipment and other service facilities that are designed and/or located so as to prevent water from entering or accumulating within the components during conditions of Flooding.~~
- (3) ~~Utilities:~~
- ~~a. All new and replacement water supply systems shall be designed to minimize or eliminate infiltration of Flood waters into the system;~~
 - ~~b. New and replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of Flood waters into the systems and discharge from the systems into Flood waters; and~~
 - ~~c. On-site waste disposal systems shall be located to avoid impairment to them or contamination from them during Flooding.~~
- (4) ~~Subdivision Proposals:~~
- ~~a. All subdivision proposals shall be consistent with the need to minimize Flood damage;~~
 - ~~b. All subdivision proposals shall have public utilities and facilities such as sewer, gas, electrical, and water systems located and constructed to minimize Flood damage;~~
 - ~~c. All subdivision proposals shall have adequate drainage provided to reduce exposure to Flood damage; and~~
 - ~~d. Base Flood elevation data shall be provided for subdivision proposals and other proposed Development that contain at least 50 lots or five acres, whichever is less.~~

18-6-113. — SPECIFIC STANDARDS.

~~— In all Special Flood Hazard Areas the following provisions shall apply to the floodplain component of the Storm Water Management Permit:~~

~~(1) Residential Construction:~~

- ~~a. Development or Substantial Improvement of any residential structure shall have the lowest floor (including basement) elevated to a minimum of 1' above the Base Flood elevation.~~
- ~~b. Within Zones AH and AO, adequate drainage paths shall be constructed around structures on slopes to guide flood waters around and away from proposed structures.~~

- 273 e. ~~Within Zones AH and AO, adequate drainage paths shall be constructed around~~
274 ~~structures on slopes to guide Flood waters around and away from proposed structures.~~
- 275 (2) ~~Nonresidential Construction:~~
- 276 a. ~~Development or Substantial Improvement of any commercial, industrial, or other~~
277 ~~nonresidential structure shall either have the lowest floor (including basement) elevated~~
278 ~~to a minimum of 1' above the Base Flood elevation, or, together with attendant utility and~~
279 ~~sanitary facilities, shall:~~
- 280 i. ~~Be flood proofed so that below the Base Flood elevation the structure is~~
281 ~~watertight, with walls substantially impermeable to the passage of water;~~
282 ii. ~~Have structural components capable of resisting hydrostatic and hydrodynamic~~
283 ~~loads and effects of buoyancy; and~~
284 iii. ~~Be certified by a registered professional engineer or architect that the design and~~
285 ~~methods of construction are in accordance with accepted standards of practice for~~
286 ~~meeting the provisions of this Chapter. Such certification shall be provided to~~
287 ~~the Division as set forth in Section 18-6-110(3)(b).~~
- 288 b. ~~Within any AO Zone, all Development or Substantial Improvements of non-residential~~
289 ~~structures shall:~~
- 290 i. ~~Have the lowest floor (including basement) elevated above the highest adjacent~~
291 ~~grade, at least as high as 1 foot above the depth number specified in feet on the~~
292 ~~FIRM (at least two feet if no depth number is specified); or~~
293 ii. ~~Together with attendant utility and sanitary facilities be completely flood proofed~~
294 ~~to that level to meet the flood proofing standard specified in Section 18-6-~~
295 ~~113(2)(a).~~
- 296 c. ~~Within Zones AH and AO, adequate drainage paths shall be constructed around~~
297 ~~structures on slopes to guide floodwaters around and away from proposed structures.~~
- 298 (3) ~~Manufactured Homes:~~
- 299 a. ~~Manufactured homes shall be anchored in accordance with Section 18-6-112(1)(b).~~
- 300 b. ~~All newly placed manufactured homes or those to be substantially improved shall~~
301 ~~conform to the following requirements:~~
- 302 i. ~~Manufactured homes that are placed or substantially improved on a site (1)~~
303 ~~outside of a manufactured home park or Subdivision, (2) in a new manufactured~~
304 ~~home park or Subdivision, (3) in an expansion to an existing manufactured home~~
305 ~~park or Subdivision, or (4) in an existing manufactured home park or Subdivision~~
306 ~~on which a manufactured home has incurred "substantial damage" as the result of~~
307 ~~a Flood shall be elevated on a permanent foundation such that the lowest floor of~~
308 ~~the manufactured home is elevated a minimum of 1' above the Base Flood~~
309 ~~elevation and be securely anchored to an adequately anchored foundation system~~
310 ~~to resist flotation, collapse, and lateral movement.~~
- 311 ii. ~~Manufactured homes to be placed or substantially improved on sites in existing~~
312 ~~manufactured home parks or Subdivisions that are not subject to the provisions in~~
313 ~~(i) above shall be elevated so that either (1) the lowest floor of the manufactured~~
314 ~~home is to a minimum of 1' above the Base Flood elevation, or (2) the~~
315 ~~manufactured home chassis is supported by reinforced piers or other foundation~~
316 ~~elements that are no less than 36 inches in height above grade, and is securely~~
317 ~~anchored to an adequately anchored foundation system to resist flotation,~~
318 ~~collapse, and lateral movement.~~
- 319 (4) ~~Recreational Vehicles. Recreational vehicles shall either:~~
- 320 a. ~~be on the site for fewer than 180 consecutive days;~~
321 b. ~~be fully licensed and ready for highway use, or~~
322 c. ~~meet the permit requirements and elevation and anchoring requirements for resisting~~
323 ~~wind forces.~~

- (5) ~~Openings in Enclosures Below the Lowest Floor. For all Development or Substantial Improvements, fully enclosed areas below the lowest floor that are subject to Flooding shall be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwaters. Designs for meeting this requirement must either be certified by a registered professional engineer or architect or must meet or exceed the following minimum criteria:~~
- ~~a. A minimum of two openings having a total net area of not less than one square inch for every square foot of enclosed area subject to Flooding shall be provided;~~
 - ~~b. The bottom of all openings shall be no higher than one foot above grade;~~
 - ~~c. Openings may be equipped with screens, louvers, or other coverings or devices, provided that they permit the automatic entry and exit of Floodwaters.~~

~~18-6-114. FLOODWAYS.~~

~~Located within Special Flood Hazard Areas are areas designated as Floodways. Since the Floodway is an extremely hazardous area due to the velocity of Flood waters that carry debris and potential projectiles, and because of Erosion potential, the following provisions apply:~~

- ~~(1) Encroachments, including fill, Development, Substantial Improvements, and other construction may be prohibited, unless certification by a registered professional engineer or architect is provided demonstrating that encroachments will not result in any increase in Flood levels during the occurrence of the Base Flood discharge.~~
- ~~(2) In addition to satisfying the requirements of Subsection (1) above, all Development and Substantial Improvements located in Floodways shall comply with all applicable provisions of this Chapter.~~

CHAPTER 18-8 BONDING FOR DRAINAGE SYSTEM FACILITIES

Sections:

- 18-8-101. Performance Bonds.
- 18-8-102. Bond Processing.
- 18-8-103. ~~Land to which this Ordinance Applies~~Repealed.
- 18-8-104. ~~Basis for Establishing the Areas of Special Flood Hazard~~Repealed.
- 18-8-105. ~~Compliance~~Repealed.
- 18-8-106. ~~Abrogation and Greater Restrictions~~Repealed.
- 18-8-107. ~~Interpretation~~Repealed.
- 18-8-108. ~~Warning and Disclaimer of Liability~~Repealed.
- 18-8-109. ~~Establishment of Development Permit~~Repealed.
- 18-8-110. ~~Designation of the City Engineer~~Repealed.
- 18-8-111. ~~Duties and Responsibilities of the City Engineer~~Repealed.
- 18-8-112. ~~Variance Procedure~~Repealed.
- 18-8-113. ~~General Standards~~Repealed.
- 18-8-114. ~~Specific Standards~~Repealed.
- 18-8-115. ~~Floodways~~Repealed.

~~18-8-103. LAND TO WHICH THIS ORDINANCE APPLIES.~~

~~This ordinance shall apply to all areas of special flood hazard within the jurisdiction of West Valley City.~~

**~~18-8-104. BASIS FOR ESTABLISHING THE AREAS OF SPECIAL FLOOD
HAZARD.~~**

~~———— The areas of special flood hazard identified by the Federal Emergency Management Agency in a scientific and engineering report entitled, "The Flood Insurance Study for West Valley City," effective December 5, 2006, with an accompanying Flood Insurance Rate Map (FIRM) dated December 5, 2006, is hereby adopted by reference and declared to be part of this ordinance. The Flood Insurance Study and FIRM are on file in the office of the West Valley City Public Works Department.~~

~~18-8-105. COMPLIANCE.~~

~~———— No structure or land shall hereafter be constructed, located, extended, converted, or altered without full compliance with the terms of this ordinance and other applicable regulations.~~

~~18-8-106. ABROGATION AND GREATER RESTRICTIONS.~~

~~———— This ordinance is not intended to repeal, abrogate, or impair any existing easements, covenants, or deed restrictions. However, where this ordinance and another ordinance, easement, covenant, or deed restriction conflict or overlap, whichever imposes the more stringent restriction shall prevail.~~

~~18-8-107. INTERPRETATION.~~

~~———— In the interpretation and application of this ordinance, all provisions shall be:~~

- ~~(1) Considered as minimum requirements;~~
- ~~(2) Liberally construed in favor of the City; and~~
- ~~(3) Deemed neither to limit nor repeal any other powers granted under state statutes.~~

~~18-8-108. WARNING AND DISCLAIMER OF LIABILITY.~~

~~———— The degree of flood protection required by this ordinance is considered reasonable for regulatory purposes and is based on scientific and engineering considerations. Larger floods can and will occur on rare occasions. Flood heights may be increased by man-made or natural causes. This ordinance does not imply that land outside the areas of special flood hazards or uses permitted within such areas will be free from flooding or flood damages. This ordinance shall not create liability on the part of the City, any officer, or employee thereof, or the Federal Emergency Management Agency for any flood damages that result from reliance on this ordinance or any administrative decision lawfully made thereunder.~~

~~18-8-109. ESTABLISHMENT OF DEVELOPMENT PERMIT.~~

~~———— A development permit shall be obtained before construction or development begins within any area of special flood hazard established in Section 18-8-104. Application for a development permit shall be made on forms furnished by the City Engineer and may include, but not be limited to, plans in duplicate drawn to scale showing the nature, location, dimensions, and elevations of the area in question; existing or proposed structures, fill, storage of materials, drainage facilities; and the location of the foregoing. Specifically, the following information is required:~~

- ~~(1) Elevation in relation to mean sea level of the lowest floor (including basement) of all structures;~~
- ~~(2) Elevation in relation to mean sea level to which any structure has been flood proofed;~~
- ~~(3) Certification by a registered professional engineer or architect that the flood proofing methods for any non-residential structure meet the flood proofing criteria in Section 18-8-114(2); and~~
- ~~(4) Description of the extent to which any watercourse will be altered or relocated as a result of proposed development.~~

~~18-8-110. DESIGNATION OF THE CITY ENGINEER.~~

~~The City Engineer or the Engineer's designee is hereby appointed to administer and implement this ordinance by granting or denying development permit applications in accordance with its provisions.~~

~~18-8-111. DUTIES AND RESPONSIBILITIES OF THE CITY ENGINEER.~~

~~Duties of the City Engineer shall include, but not be limited to:~~

~~(1) Permit Review:~~

- ~~a. Review all development permits to determine that the permit requirements of this ordinance have been satisfied.~~
- ~~b. Review all development permits to determine that all necessary permits have been obtained from federal, state, or local governmental agencies from which prior approval is required.~~
- ~~c. Review all development permits to determine if the proposed development is located in a floodway. If located in the floodway, assure that the encroachment provisions of Section 18-8-115(1) are met.~~

~~(2) Use of Other Base Flood Data. When base flood elevation data has not been provided in accordance with Section 18-8-104, "Basis for Establishing the Areas of Special Flood Hazard," the City Engineer shall obtain, review, and reasonably utilize any base flood elevation and floodway data available from any federal, state, or other source as criteria for requiring that new construction, substantial improvements, or other development in Zone A are administered in accordance with Section 18-8-114, "Specific Standards."~~

~~(3) Information to be Obtained and Maintained:~~

- ~~a. Obtain and record the actual elevation (in relation to mean sea level) of the lowest floor (including basement) of all new or substantially improved structures, and whether or not the structure contains a basement.~~
- ~~b. For all new or substantially improved flood proofed structures:
 - ~~i. Verify and record the actual elevation (in relation to mean sea level) to which the structure has been flood proofed.~~
 - ~~ii. Maintain the flood proofing certifications required in Section 18-8-109(3).~~~~
- ~~c. Maintain for public inspection all records pertaining to the provisions of this ordinance.~~

~~(4) Alteration of Watercourses:~~

- ~~a. Notify adjacent communities and the State Division of Comprehensive Emergency Management prior to any alteration or relocation of a watercourse, and submit evidence of such notification to the Federal Emergency Management Agency.~~
- ~~b. Require that maintenance is provided within the altered or relocated portion of said watercourse so that the flood-carrying capacity is not diminished.~~

~~(5) Interpretation of FIRM Boundaries. Make interpretations, where needed, as to the exact location of the boundaries of the areas of special flood hazard (for example, where there appears to be a conflict between a mapped boundary and actual field conditions). The person contesting the location of the boundary shall be given a reasonable opportunity to appeal the interpretation as provided in Section 18-8-112, "Variance Procedure."~~

~~18-8-112. VARIANCE PROCEDURE.~~

~~(1) Appeal Board:~~

- ~~a. The Board of Adjustment, as established by the City, shall hear and decide appeals and requests for variances from the requirements of this ordinance.~~

- b. ~~The Board of Adjustment shall hear and decide appeals when it is alleged there is an error in any requirement, decision, or determination made by the City Engineer in the enforcement or administration of this ordinance.~~
- c. ~~Those aggrieved by the decision of the Board of Adjustment, or any taxpayer, may appeal such decisions to the Third District Court, as provided in Section 10-9-708, Utah Code Annotated 1953, as amended.~~
- d. ~~In passing upon such applications, the Board of Adjustment shall consider all technical evaluations, all relevant factors, standards specified in other sections of this ordinance, and:~~
- ~~i. The danger that materials may be swept onto other lands to the injury of others;~~
 - ~~ii. The danger to life and property due to flooding or erosion damage;~~
 - ~~iii. The susceptibility of the proposed facility and its contents to flood damage and the effect of such damage on the individual owners;~~
 - ~~iv. The importance of the services provided by the proposed facility to the community;~~
 - ~~v. The necessity to the facility of a waterfront location, where applicable;~~
 - ~~vi. The availability of alternative locations for the proposed use that are not subject to flooding or erosion damage;~~
 - ~~vii. The compatibility of the proposed use with the existing and anticipated development;~~
 - ~~viii. The relationship of the proposed use to the comprehensive plan and floodplain management program for that area;~~
 - ~~ix. The safety of access to the property in times of flood for ordinary and emergency vehicles;~~
 - ~~x. The expected heights, velocity, duration, rate of rise and sediment transport of the flood waters, and the effects of wave action, if applicable, expected at the site; and~~
 - ~~xi. The costs of providing governmental services during and after flood conditions, including maintenance and repair of public utilities and facilities such as sewer, gas, electrical, and water systems; streets; and bridges.~~
- e. ~~Upon consideration of the factors of Section 18-8-112(1)(d) and the purposes of this ordinance, the Board of Adjustment may attach such conditions to the granting of variances as it deems necessary to further the purposes of this ordinance.~~
- f. ~~The City Engineer shall maintain the records of all appeal actions, including technical information, and report any variances to the Federal Emergency Management Agency.~~
- (2) ~~Conditions for Variances.~~
- ~~a. Generally, variances may be issued for new construction and substantial improvements to be erected on a lot of one-half acre or less in size, contiguous to and surrounded by lots with existing structures constructed below the base flood level, provided that items (i) thru (xi) of Section 18-8-112(1)(d) have been fully considered. As the lot size increases beyond the one-half acre, the technical justifications required for issuing the variance increases.~~
 - ~~b. Variances may be issued for the reconstruction, rehabilitation, or restoration of structures listed on the national register of historic places or the state inventory of historic places without regard to the procedures set forth in the remainder of this section.~~
 - ~~c. Variances shall not be issued within any designated floodway if any increase in flood levels during the base flood discharge would result.~~
 - ~~d. Variances shall only be issued upon a determination that the variance is the minimum necessary, considering the flood hazard, to afford relief.~~
 - ~~e. Variances shall only be issued upon:~~
 - ~~i. A showing of good and sufficient cause;~~

- ii. ~~A determination that failure to grant the variance would result in exceptional hardship to the applicant; and~~
- iii. ~~A determination that the granting of a variance will not result in increased flood heights, additional threats to public safety, extraordinary public expenses, create nuisances, cause fraud on or victimization of the public as identified in Section 18-8-112(1)(d), or conflict with existing local laws or ordinances.~~
- f. ~~Any applicant to whom a variance is granted shall be given written notice that the structure will be permitted to be built with a lowest floor below the base flood elevation and that the cost of flood insurance will be commensurate with the increased risk from the reduced lowest floor elevation.~~

18-8-113. GENERAL STANDARDS.

~~In all areas of special flood hazard, the following standards are required:~~

~~(1) Anchoring.~~

- a. ~~All new construction and substantial improvements shall be anchored to prevent flotation, collapse, or lateral movement of the structure and must be capable of resisting hydrostatic and hydrodynamic loads.~~
- b. ~~All manufactured homes must be elevated and anchored to resist flotation, collapse, or lateral movement and must be capable of resisting the hydrostatic and hydrodynamic loads. Methods of anchoring may include, but are not limited to, use of over the top or frame ties to ground anchors. This requirement is in addition to applicable state and local anchoring requirements for resisting wind forces. Specific requirements may be:~~
 - i. ~~Over the top ties be provided at each of the four corners of the manufactured home, with two additional ties per side at intermediate locations, with manufactured homes less than 50 feet long requiring one additional tie per side;~~
 - ii. ~~Frame ties be provided at each corner of the home, with five additional ties per side at intermediate points, with manufactured homes less than 50 feet long requiring four additional ties per side;~~
 - iii. ~~All components of the anchoring system be capable of carrying a force of 4,800 pounds; and~~
 - iv. ~~Any additions to the manufactured home be similarly anchored.~~

~~(2) Construction Materials and Methods.~~

- a. ~~All new construction and substantial improvements shall be constructed with materials and utility equipment resistant to flood damage.~~
- b. ~~All new construction and substantial improvements shall be constructed using methods and practices that minimize flood damage.~~
- c. ~~All new construction and substantial improvements shall be constructed with electrical, heating, ventilation, plumbing, and air conditioning equipment and other service facilities that are designed and/or located so as to prevent water from entering or accumulating within the components during conditions of flooding.~~

~~(3) Utilities.~~

- a. ~~All new and replacement water supply systems shall be designed to minimize or eliminate infiltration of flood waters into the system;~~
- b. ~~New and replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of flood waters into the systems and discharge from the systems into flood waters; and~~
- c. ~~On-site waste disposal systems shall be located to avoid impairment to them or contamination from them during flooding.~~

~~(4) Subdivision Proposals.~~

- a. ~~All subdivision proposals shall be consistent with the need to minimize flood damage;~~

- b. ~~All subdivision proposals shall have public utilities and facilities such as sewer, gas, electrical, and water systems located and constructed to minimize flood damage;~~
- c. ~~All subdivision proposals shall have adequate drainage provided to reduce exposure to flood damage; and~~
- d. ~~Base flood elevation data shall be provided for subdivision proposals and other proposed development that contain at least 50 lots or five acres, whichever is less.~~

18-8-114. SPECIFIC STANDARDS.

~~In all areas of special flood hazard where base flood elevation data has been provided as set forth in Section 18-8-104, "Basis for Establishing the Areas of Special Flood Hazard," or Section 18-8-111(2), "Use of Other Base Flood Data," the following provisions are required:~~

~~(1) Residential Construction:~~

- a. ~~New construction and substantial improvement of any residential structure shall have the lowest floor (including basement) elevated to or above the base flood elevation.~~
- b. ~~Require within any AO Zone that all new construction and substantial improvements of residential structures have the lowest floor (including basement) elevated above the highest adjacent grade, at least as high as the depth number specified in feet on the FIRM (at least two feet if no depth number is specified).~~
- c. ~~Require within Zones AH and AO adequate drainage paths around structures on slopes to guide flood waters around and away from proposed structures.~~

~~(2) Nonresidential Construction:~~

- a. ~~New construction and substantial improvement of any commercial, industrial, or other nonresidential structure shall either have the lowest floor (including basement) elevated to the level of the base flood elevation, or, together with attendant utility and sanitary facilities, shall:~~
 - i. ~~Be flood proofed so that below the base flood elevation the structure is watertight, with walls substantially impermeable to the passage of water;~~
 - ii. ~~Have structural components capable of resisting hydrostatic and hydrodynamic loads and effects of buoyancy; and~~
 - iii. ~~Be certified by a registered professional engineer or architect that the design and methods of construction are in accordance with accepted standards of practice for meeting the provisions of this ordinance. Such certification shall be provided to the official as set forth in Section 18-8-111(3)(b).~~
- b. ~~Require within any AO Zone that all new construction and substantial improvements of non-residential structures:~~
 - i. ~~Have the lowest floor (including basement) elevated above the highest adjacent grade at least as high as the depth number specified in feet on the FIRM (at least two feet if no depth number is specified); or~~
 - ii. ~~Together with attendant utility and sanitary facilities be completely flood proofed to that level to meet the flood proofing standard specified in Section 18-8-114(2)(a).~~
- c. ~~Require within Zones AH and AO adequate drainage paths around structures on slopes to guide floodwaters around and away from proposed structures.~~

~~(3) Manufactured Homes:~~

- a. ~~Manufactured homes shall be anchored in accordance with Section 18-8-113(1)(b).~~
- b. ~~All manufactured homes or those to be substantially improved shall conform to the following requirements:~~
 - i. ~~Require that manufactured homes that are placed or substantially improved on a site (1) outside of a manufactured home park or subdivision, (2) in a new manufactured home park or subdivision, (3) in an expansion to an existing~~

601 manufactured home park or subdivision, or (4) in an existing manufactured home
602 park or subdivision on which a manufactured home has incurred "substantial
603 damage" as the result of a flood be elevated on a permanent foundation such that
604 the lowest floor of the manufactured home is elevated to or above the base flood
605 elevation and be securely anchored to an adequately anchored foundation system
606 to resist flotation, collapse, and lateral movement.

- 607 ii. Require that manufactured homes to be placed or substantially improved on sites
608 in existing manufactured home parks or subdivisions that are not subject to the
609 provisions in (i) above be elevated so that either (1) the lowest floor of the
610 manufactured home is at or above the base flood elevation, or (2) the
611 manufactured home chassis is supported by reinforced piers or other foundation
612 elements that are no less than 36 inches in height above grade and be securely
613 anchored to an adequately anchored foundation system to resist flotation,
614 collapse, and lateral movement.

615 (4) ~~Recreational Vehicles.~~ Require that recreational vehicles either (1) be on the site for fewer than
616 180 consecutive days, (2) be fully licensed and ready for highway use, or (3) meet the permit
617 requirements and elevation and anchoring requirements for resisting wind forces.

618 (5) ~~Openings in Enclosures Below the Lowest Floor.~~ For all new construction and substantial
619 improvements, fully enclosed areas below the lowest floor that are subject to flooding shall be
620 designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the
621 entry and exit of floodwaters. Designs for meeting this requirement must either be certified by a
622 registered professional engineer or architect or must meet or exceed the following minimum
623 criteria:

- 624 a. A minimum of two openings having a total net area of not less than one square inch for
625 every square foot of enclosed area subject to flooding shall be provided;
626 b. The bottom of all openings shall be no higher than one foot above grade;
627 c. Openings may be equipped with screens, louvers, or other coverings or devices, provided
628 that they permit the automatic entry and exit of floodwaters.

629 **18-8-115. FLOODWAYS.**

630 ~~Located within areas of special flood hazard established in Section 18-8-104 are areas designated~~
631 ~~as floodways. Since the floodway is an extremely hazardous area due to the velocity of flood waters that~~
632 ~~carry debris, potential projectiles, and erosion potential, the following provisions apply:~~

633 (1) ~~Prohibit encroachments, including fill, new construction, substantial improvements, and other~~
634 ~~development, unless certification by a registered professional engineer or architect is provided~~
635 ~~demonstrating that encroachments shall not result in any increase in flood levels during the~~
636 ~~occurrence of the base flood discharge.~~

637 (2) ~~If Section (1) above is satisfied, all new construction and substantial improvements shall comply~~
638 ~~with all applicable flood hazard reduction provisions of Sections 18-8-113, et seq.~~

640 **Section 2. Amendment.** Title 18 of the West Valley City Municipal Code is hereby amended as
641 follows:

642 **18-1-102. DEFINITIONS.**

643 Any interpretation of any definition or the manner of application of the provisions of this Title to
644 specific individual developments, subdivisions or any projects affected by this Title, shall be left to the
645 Public Works Department of the City. Said Department's interpretation shall be binding upon all parties
646 involved. Whenever any words or phrases used in this Title are not defined herein, but are defined in
647 related sections of the Utah Code or in other West Valley City Ordinances, such definitions are

incorporated herein and shall apply as though set forth herein in full, unless the context clearly indicates a contrary intention. Unless a contrary intention clearly appears, words used in the present tense include the future, the singular includes the plural, the term “shall” is always mandatory, and the term “may” is permissive. The following terms as used in this Title shall have the respective meanings hereinafter set forth.

(1) “Accelerated Soil Erosion” means the increased migration and movement of soils on all land surfaces that occur as a result of human activities.

(2) “Base Flood” means a flood having a one percent chance of being equaled or exceeded in any given year.

(3) “Best Management Practices” (BMPs) means the schedule of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of waters of the state. BMPs also include treatment, operating procedures, and practices to control site runoff, spillage or leaks, waste disposal, or drainage from material storage. BMPs include structural and nonstructural control.

(4) “Building Permit” means all permits for construction issued by the Building Inspection Division of the West Valley City Community and Economic Development Department, except those issued solely for Grading or for the propose of remodeling or repairing any existing building or structure where there is no increase in impervious surface on the property resulting from such permit.

(5) “City” means West Valley City.

(6) “City Council” means the West Valley City Council.

(7) “City Manager” means the City Manager of West Valley City.

(8) “County” means Salt Lake County.

(9) “County Facilities” means the following facilities, including their open channel sections and sections in conduit:

a. The Jordan River;

b. Utah and Salt Lake Canal;

c. South Jordan Canal;

d. North Jordan Canal;

e. Kennecott Canal, located at approximately 2900 South from 4000 West to 5200 West and thence north to the Riter Canal;

f. Riter Canal;

g. Lee Creek;

h. Kearns-Chesterfield Drain, from the Utah and Salt Lake Canal to Jordan River including Decker Lake;

i. 2700 West Drain, from the North Jordan Canal to I-215 Drain;

j. I-215 Drain, from 4100 South to Decker Lake;

k. 4100 South Drain, from I-215 to Jordan River;

l. 4700 South Drain, from South Jordan Canal to 2700 West;

m. Coon Creek;

n. Kersey Creek.

(10) “Developer” means any Person who alters, improves, constructs upon, or in any other way physically impacts any real property in the City. A Developer may or may not be the owner of the property.

(11) “Detention” means the temporary containing or holding of storm runoff to be released at a controlled discharge rate.

(12) “Development” means any man-made change to improved or unimproved real property, including, but not limited to, buildings or other structures, mining, dredging, filling, Grading, paving, excavation, or drilling operations.

(13) “Division” means the Engineering Division of the West Valley City Public Works Department.

(14) “Drainage Area” means that portion of a drainage basin which is a contributing area to a

specified point within a single drainage basin or sub-basin expressed in acres, square miles or other unit of area; upon designation of a drainage area upon a map referred to in Section 18-1-106, "drainage area" shall mean each area so designated.

(15) "Drainage Basin" means the area where drainage or Storm Waters drain or gravitate toward a natural or artificial channel, conduit, retention or detention area; upon designation of a drainage basin upon a map referred to in Section 18-1-106, "drainage basin" shall mean each area so designated.

(16) "Drainage System" means all facilities used for conducting Excess Waters to, through and from a Drainage Area to the point of Final Retention or Destination, including but not limited to any or all of the following: pipes, conduits, culverts, curbs, gutters, waterways, inlets, swales, ditches, gulches, channels, retention and detention areas, and appurtenant features, as well as easements and rights-of-way necessary to accommodate the same. In ascending order of size and capacity, components of the Drainage System include the following: Unit Drainage System, Intermediate Drainage System, Major Drainage System, County Facility. A Drainage System may, but need not, contain all of the foregoing components.

(17) "Earth Disturbance" means a man-made change in the natural cover or topography of land, including all Grading, cut and fill, building, paving, landscaping and other activities which may result in, or contribute to, soil Erosion or Sedimentation of the Storm Waters.

(18) "Erosion" means the process by which the ground surface is worn away by action of wind, water, gravity, or any other natural means.

(19) "Excavation" means any act by which soil or rock is cut into, dug, quarried, uncovered, removed, displaced, relocated, or stockpiled, including all conditions resulting from such activities.

(20) "Excess Waters" means those waters flowing upon or across real property which are created because of alteration of or building upon the natural terrain, or other increase in the impervious surface of the property, which waters are additional to the waters which would flow upon or across the unaltered natural terrain.

(21) "Filling" means any act by which soil, rock, or other construction materials are placed, stockpiled, dumped, or a combination thereof, onto the surface of the earth that may result in exposure to rain or wind.

(22) "Final Destination" means a natural or artificial retention area which serves one or more drainage basins into which excess waters are discharged, without subsequent discharge into any other drainage system, facility or retention or detention area or facility.

~~(23) "FIRM" or "Flood Insurance Study for Salt Lake County and Incorporated Areas" means a scientific and engineering report issued by the Federal Emergency Management Agency, effective December 5, 2006, and an accompanying Flood Insurance Rate Map (FIRM), both of which are on file in the office of the West Valley City Public Works Department.~~

~~(24)~~(23) "Flood" or "Flooding" means a general and temporary condition of partial or complete inundation of normally dry land areas from:

- a. The overflow of inland waters; and/or
- b. The unusual and rapid accumulation or runoff of surface waters from any source.

~~(25) "Floodway" means the channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than one foot.~~

~~(26)~~(24) "Grading" means any stripping, excavation, filling, stockpiling, or similar disturbance of real property, including such property in its excavated or filled condition.

~~(27)~~(25) "Guidance Document for Storm Water Management" means the West Valley City Public Works Department's published manual entitled "Guidance Document for Storm Water Management, 2002," including any amendments.

~~(28)~~(26) "Intermediate Drainage System Facility" means that part of the drainage system which serves one or more single units, subdivision or development drainage system facilities, which conveys excess waters from a unit, subdivision or other drainage site and which is tributary to a Major Drainage System Facility, a trunk line, or County Facility. Intermediate Drainage System Facilities

within this system will be designed to fully accommodate a 10-year frequency flood.

~~(29) “Lowest Floor” means the lowest floor of the lowest enclosed area (including basement). An unfinished or flood resistant enclosure, usable solely for parking of vehicles, building access, or storage, in an area other than a basement area, is not considered a building’s lowest floor, provided that such enclosure is not built so as to render the structure in violation of the applicable non-elevation design requirements of this Chapter.~~

~~(30)~~(27) “Major Drainage System Facility” means that part of the Drainage System within a Drainage Basin which is contributed to by one or more Drainage Areas within the Drainage Basin by Unit and Intermediate Drainage Systems. A Major Drainage System Facility is tributary to a County Facility.

~~(31) “Manufactured Home” means a structure, transportable in one or more sections, which is built on a permanent chassis and is designed for use with or without a permanent foundation when attached to the required utilities. The term “manufactured home” does not include a “recreational vehicle.”~~

~~(32)~~(28) “Municipal Separate Storm Sewer” means a conveyance or system of conveyances (including but not limited to, roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains), designed or used for collecting or conveying Storm Waters.

~~(33) “New Construction” means structures for which the “start of construction” commenced on or after the effective date of this Storm Water Management Ordinance, and includes any subsequent improvements to such structures.~~

~~(34)~~(29) “Permanent Soil Erosion Control Measures” means those control measures which are installed or constructed on real property to control Erosion, and which are maintained after completion of all Grading and earth disturbance activities.

~~(35)~~(30) “Permittee” means any Person owning, developing, or occupying a parcel of property which is subject to a Storm Water Management Permit. Permittee shall include an applicant for a Storm Water Management Permit.

~~(36)~~(31) “Person” means any individual, firm, trust, partnership, public or private association or corporation.

~~(37)~~(32) “Pollutant” means any dirt, slurry, solid waste, construction debris, garbage, trash, rock, sand and any industrial, municipal or agricultural waste.

~~(38)~~(33) “Private Drainage System Facility” means that drainage system which drains privately-owned property, and is tributary to a Unit, Intermediate or Major Drainage System Facility, County Facility, natural tributary or Final Destination.

~~(39)~~(34) “Public Works Department” means the West Valley City Public Works Department.

~~(40)~~(35) “Public Works Director” means the Director of the West Valley City Public Works Department.

~~(41)~~(36) “Retention” means temporary or permanent accumulation of Excess Waters and/or other Storm Waters, and shall include the total or partial accumulation of such waters.

~~(42)~~(37) “Sediment” means solid material settled from suspension in a liquid. “Sedimentation” is the deposition or accumulation of such Sediment.

~~(43)~~(38) “Special Flood Hazard Areas” shall mean those areas identified by the Federal Emergency Management Agency in a scientific and engineering report entitled, “The Flood Insurance Study for Salt Lake County and Incorporated Areas” effective December 5, 2006, with an accompanying Flood Insurance Rate Map (FIRM) dated December 5, 2006. The Flood Insurance Study and FIRM are on file in the office of the West Valley City Public Works Department.

~~(44) “Start of Construction” includes “Substantial Improvement” and means the date the building permit was issued, provided that the actual start of construction, repair, reconstruction, placement, or other improvement was within 180 days of the permit date. “Actual start” means the first placement of a structure on a site, such as the pouring of a slab or footings, the installation of piles, the~~

construction of columns, or any work beyond the stage of excavation or the placement of a manufactured home on a foundation. ~~“Start of Construction” does not include land preparation such as clearing, Grading, and filling; nor does it include the installation of streets and/or walkways; nor does it include excavation for a basement, footings, piers, or foundations or the erection of temporary forms; nor does it include the installation on the property of accessory buildings such as garages or sheds not occupied as dwelling units or not part of the main structure. For a Substantial Improvement, “actual start of construction” means the first alteration of any wall, ceiling, floor, or other structural part of a building, whether or not that alteration affects the external dimensions of the building.~~

(45)(39) “Storm Drainage Master Plan” is the capital facilities plan maintained and altered by the Division, which is required and described in the Utah Code.

(46)(40) “Storm Waters” means a storm or flood flow of the magnitude which is expected to occur on the average of a 10-year frequency or has a 10 percent chance of being equaled or exceeded during any one year. “Storm Water” is the water that is produced from rain storms or melting snow.

(47)(41) “Stripping” means any activity which removes, or significantly disturbs, the vegetative surface cover (including clearing and grubbing operations).

(48) ~~“Structure” means a walled and roofed building or manufactured home that is principally above ground.~~

(49)(42) “Subdivision” means any land that is divided, resubdivided or proposed to be divided into two or more lots, parcels, sites, units, plots or other division of land for the purpose, whether immediate or future, for offer, sale, lease, or development either on the installment plan or upon any and all other plans, terms and conditions.

(50) ~~“Substantial Damage” means damage of any origin sustained by a structure whereby the cost of restoring the structure to its before damaged condition would equal or exceed 50 percent of the market value of the structure before the damage occurred.~~

(51) ~~“Substantial Improvement” means any reconstruction, rehabilitation, addition, or other improvement of a structure, the cost of which equals or exceeds 50 percent of the market value of the structure before the “Start of Construction” of the improvement. This term includes structures which have incurred “Substantial Damage,” regardless of the actual repair work performed. The term does not, however, include either:~~

a. ~~Any project for improvement of a structure to correct existing violations of State or local health, sanitary, or safety code specifications that has been identified by the local code enforcement official and which is the minimum necessary to assure safe living conditions; or~~

b. ~~Any alteration of a “historic structure,” provided that the alteration will not preclude the structure’s continued designation as a “historic structure.”~~

(52)(43) “Suspended Sediment” means the very fine soil particles that remain in suspension in water for a considerable period of time without contact with the solid fluid boundary at or near the bottom. They are maintained in suspension by the upward components of turbulent currents.

(53)(44) “UPDES” means the Utah Pollution Discharge Elimination System.

(54)(45) “Unit Drainage System Facility” means that Drainage System which drains a Subdivision or other individual Development area, and which is tributary to an Intermediate or Major Drainage System Facility or County Facility.

Section 2. Enactment. Title 25 of the West Valley City Municipal Code is hereby enacted to read as follows:

TITLE 25
FLOOD DAMAGE PREVENTION

Chapters:

- 25-1 Statutory Authorization, Findings of Fact, Purpose and Methods
 - 25-2 Definitions.
 - 25-3 General Provisions
 - 25-4 Administration
 - 25-5 Provisions for Flood Hazard Reduction
-

CHAPTER 25-1
STATUTORY AUTHORIZATION, FINDINGS OF FACT, PURPOSE AND METHODS

Sections:

- 25-1-101. Findings of Fact.
 - 25-1-102. Statement of Purpose.
 - 25-1-103. Methods of Reducing Flood Losses.
-

25-1-101. FINDINGS OF FACT.

- (1) The flood hazard areas of West Valley City are subject to periodic inundation which results in loss of life and property, health and safety hazards, disruption of commerce and governmental services, and extraordinary public expenditures for flood protection and relief, all of which adversely affect the public health, safety and general welfare.
- (2) These flood losses are created by the cumulative effect of obstructions in flood plains which cause an increase in flood heights and velocities, and by the occupancy of flood hazards areas by uses vulnerable to floods and hazardous to other lands because they are inadequately elevated, floodproofed or otherwise protected from flood damage.

25-1-102. STATEMENT OF PURPOSE.

It is the purpose of this ordinance to promote the public health, safety and general welfare and to minimize public and private losses due to flood conditions in specific areas by provisions designed to:

- (1) Protect human life and health;
- (2) Minimize expenditure of public money for costly flood control projects;
- (3) Minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public;
- (4) Minimize prolonged business interruptions;
- (5) Minimize damage to public facilities and utilities such as water and gas mains, electric, telephone and sewer lines, streets and bridges located in flood plains;
- (6) Help maintain a stable tax base by providing for the sound use and development of flood-prone areas in such a manner as to minimize future flood blight areas; and
- (7) Insure that potential buyers are notified that property is in a flood area.

25-1-103. METHODS OF REDUCING FLOOD LOSSES.

In order to accomplish its purposes, this ordinance uses the following methods:

- (1) Restrict or prohibit uses that are dangerous to health, safety or property in times of flood, or cause excessive increases in flood heights or velocities;
- (2) Require that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction;
- (3) Control the alteration of natural flood plains, stream channels, and natural protective barriers, which are involved in the accommodation of flood waters;
- (4) Control filling, grading, dredging and other development which may increase flood damage; Prevent or regulate the construction of flood barriers which will unnaturally divert flood waters or which may increase flood hazards to other lands.

CHAPTER 25-2

DEFINITIONS

25-2-101. Definitions.

25-2-101. DEFINITIONS.

Unless specifically defined below, words or phrases used in this ordinance shall be interpreted to give them the meaning they have in common usage and to give this ordinance its most reasonable application.

- (1) **ALLUVIAL FAN FLOODING** - means flooding occurring on the surface of an alluvial fan or similar landform which originates at the apex and is characterized by high-velocity flows; active processes of erosion, sediment transport, and deposition; and unpredictable flow paths.
- (2) **APEX** - means a point on an alluvial fan or similar landform below which the flow path of the major stream that formed the fan becomes unpredictable and alluvial fan flooding can occur.
- (3) **APPEAL BOARD**: Will consist of the Public Works Director and the City Manager
- (4) **AREA OF SHALLOW FLOODING** - means a designated AO, AH, or VO zone on a community's Flood Insurance Rate Map (FIRM) with a one percent chance or greater annual chance of flooding to an average depth of one to three feet where a clearly defined channel does not exist, where the path of flooding is unpredictable and where velocity flow may be evident. Such flooding is characterized by ponding or sheet flow.
- (5) **AREA OF SPECIAL FLOOD HAZARD** - is the land in the flood plain within a community subject to a one percent or greater chance of flooding in any given year. The area may be designated as Zone A on the Flood Hazard Boundary Map (FHBM). After detailed ratemaking has been completed in preparation for publication of the FIRM, Zone A usually is refined into Zones A, AE, AH, AO, A1-99, VO, V1-30, VE or V.
- (6) **BASE FLOOD** - means the flood having a one percent chance of being equaled or exceeded in any given year.
- (7) **BASEMENT** - means any area of the building having its floor sub-grade (below ground level) on all sides.
- (8) **CRITICAL FEATURE** - means an integral and readily identifiable part of a flood protection system, without which the flood protection provided by the entire system would be compromised.
- (9) **DEVELOPMENT** - means any man-made change in improved and unimproved real estate, including but not limited to buildings or other structures, mining, dredging, filling, grading, paving, excavation or drilling operations or storage of equipment or materials.
- (10) **ELEVATED BUILDING** - means a non-basement building (i) built, in the case of a building in Zones A1-30, AE, A, A99, AO, AH, B, C, X, and D, to have the top of the elevated floor, or in the case of a building in Zones V1-30, VE, or V, to have the bottom of the lowest

horizontal structure member of the elevated floor elevated above the ground level by means of pilings, columns (posts and piers), or shear walls parallel to the floor of the water and (ii) adequately anchored so as not to impair the structural integrity of the building during a flood of up to the magnitude of the base flood. In the case of Zones A1-30, AE, A, A99, AO, AH, B, C, X, and D, "elevated building" also includes a building elevated by means of fill or solid foundation perimeter walls with openings sufficient to facilitate the unimpeded movement of flood waters. In the case of Zones V1-30, VE, or V, "elevated building" also includes a building otherwise meeting the definition of "elevated building," even though the lower area is enclosed by means of breakaway walls if the breakaway walls met the standards of Section 60.3(e)(5) of the National Flood Insurance Program regulations.

(11) **EXISTING CONSTRUCTION** - means for the purposes of determining rates, structures for which the "start of construction" commenced before the effective date of the FIRM or before January 1, 1975, for FIRMs effective before that date. "Existing construction" may also be referred to as "existing structures."

(12) **EXISTING MANUFACTURED HOME PARK OR SUBDIVISION** - means a manufactured home park or subdivision for which the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including, at a minimum, the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads) is completed before the effective date of the flood plain management regulations adopted by a community.

(13) **EXPANSION TO AN EXISTING MANUFACTURED HOME PARK OR SUBDIVISION**- Means the preparation of additional sites by the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads).

(14) **FLOOD OR FLOODING** - means a general and temporary condition of partial or complete inundation of normally dry land areas from:

- a. the overflow of inland or tidal waters.
- b. the unusual and rapid accumulation or runoff of surface waters from any source.

(15) **FLOOD INSURANCE RATE MAP (FIRM)** - means an official map of a community, on which the Federal Emergency Management Agency has delineated both the areas of special flood hazards and the risk premium zones applicable to the community.

(16) **FLOOD INSURANCE STUDY** - is the official report provided by the Federal Emergency Management Agency. The report contains flood profiles, water surface elevation of the base flood, as well as the Flood Boundary-Floodway Map.

(17) **FLOOD PLAIN OR FLOOD-PRONE AREA** - means any land area susceptible to being inundated by water from any source (see definition of flooding).

(18) **FLOOD PLAIN MANAGEMENT** - means the operation of an overall program of corrective and preventive measures for reducing flood damage, including but not limited to emergency preparedness plans, flood control works and flood plain management regulations.

(19) **FLOOD PLAIN MANAGEMENT REGULATIONS** - means zoning ordinances, subdivision regulations, building codes, health regulations, special purpose ordinances (such as a flood plain ordinance, grading ordinance and erosion control ordinance) and other applications of police power. The term describes such state or local regulations, in any combination thereof, which provide standards for the purpose of flood damage prevention and reduction.

(20) **FLOOD PROTECTION SYSTEM** - means those physical structural works for which funds have been authorized, appropriated, and expended and which have been constructed specifically to modify flooding in order to reduce the extent of the areas within a community subject to a "special flood hazard" and the extent of the depths of associated flooding. Such a system typically includes hurricane tidal barriers, dams, reservoirs, levees or dikes. These specialized flood modifying works are those constructed in conformance with sound engineering standards.

- (21) **FLOOD PROOFING** - means any combination of structural and non-structural additions, changes, or adjustments to structures which reduce or eliminate flood damage to real estate or improved real property, water and sanitary facilities, structures and their contents.
- (22) **FLOODWAY (REGULATORY FLOODWAY)** - means the channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than a designated height.
- (23) **FUNCTIONALLY DEPENDENT USE** - means a use which cannot perform its intended purpose unless it is located or carried out in close proximity to water. The term includes only docking facilities, port facilities that are necessary for the loading and unloading of cargo or passengers, and ship building and ship repair facilities, but does not include long-term storage or related manufacturing facilities.
- (24) **HIGHEST ADJACENT GRADE** - means the highest natural elevation of the ground surface prior to construction next to the proposed walls of a structure.
- (25) **HISTORIC STRUCTURE** - means any structure that is:
- a. Listed individually in the National Register of Historic Places (a listing maintained by the Department of Interior) or preliminarily determined by the Secretary of the Interior as meeting the requirements for individual listing on the National Register;
 - b. Certified or preliminarily determined by the Secretary of the Interior as contributing to the historical significance of a registered historic district or a district preliminarily determined by the Secretary to qualify as a registered historic district;
 - c. Individually listed on a state inventory of historic places in states with historic preservation programs which have been approved by the Secretary of Interior; or
 - d. Individually listed on a local inventory or historic places in communities with historic preservation programs that have been certified either:
 - i. by an approved state program as determined by the Secretary of the Interior or;
 - ii. directly by the Secretary of the Interior in states without approved programs.
- (26) **LEVEE** - means a man-made structure, usually an earthen embankment, designed and constructed in accordance with sound engineering practices to contain, control, or divert the flow of water so as to provide protection from temporary flooding.
- (27) **LEVEE SYSTEM** - means a flood protection system which consists of a levee, or levees, and associated structures, such as closure and drainage devices, which are constructed and operated in accordance with sound engineering practices.
- (28) **LOWEST FLOOR** - means the lowest floor of the lowest enclosed area (including basement). An unfinished or flood resistant enclosure, usable solely for parking or vehicles, building access or storage in an area other than a basement area is not considered a building's lowest floor; **provided** that such enclosure is not built so as to render the structure in violation of the applicable non-elevation design requirement of Section 60.3 of the National Flood Insurance Program regulations.
- (29) **MANUFACTURED HOME** - means a structure transportable in one or more sections, which is built on a permanent chassis and is designed for use with or without a permanent foundation when connected to the required utilities. The term "manufactured home" does not include a "recreational vehicle".
- (30) **MANUFACTURED HOME PARK OR SUBDIVISION** - means a parcel (or contiguous parcels) of land divided into two or more manufactured home lots for rent or sale.
- (31) **MEAN SEA LEVEL** - means, for purposes of the National Flood Insurance Program, the National Geodetic Vertical Datum (NGVD) of 1929 or other datum, to which base flood elevations shown on a community's Flood Insurance Rate Map are referenced.
- (32) **NEW CONSTRUCTION** - means, for the purpose of determining insurance rates, structures for which the "start of construction" commenced on or after the effective date of an initial FIRM or after December 31, 1974, whichever is later, and includes any subsequent improvements to such structures. For flood plain management purposes, "new construction"

means structures for which the "start of construction" commenced on or after the effective date of a flood plain management regulation adopted by a community and includes any subsequent improvements to such structures.

(33) **NEW MANUFACTURED HOME PARK OR SUBDIVISION** - means a manufactured home park or subdivision for which the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including at a minimum, the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads) is completed on or after the effective date of flood plain management regulations adopted by a community.

(34) **RECREATIONAL VEHICLE** - means a vehicle which is:

- a. built on a single chassis;
- b. 400 square feet or less when measured at the largest horizontal projections;
- c. designed to be self-propelled or permanently towable by a light duty truck; and
- d. designed primarily not for use as a permanent dwelling but as temporary living quarters for recreational, camping, travel, or seasonal use.

(35) **START OF CONSTRUCTION** - (for other than new construction or substantial improvements under the Coastal Barrier Resources Act (Pub. L. 97-348)), includes substantial improvement and means the date the building permit was issued, provided the actual start of construction, repair, reconstruction, rehabilitation, addition, placement, or other improvement was within 180 days of the permit date. The actual start means either the first placement of permanent construction of a structure on a site, such as the pouring of slab or footings, the installation of piles, the construction of columns, or any work beyond the stage of excavation; or the placement of a manufactured home on a foundation. Permanent construction does not include land preparation, such as clearing, grading and filling; nor does it include the installation of streets and/or walkways; nor does it include excavation for basement, footings, piers or foundations or the erection of temporary forms; nor does it include the installation on the property of accessory buildings, such as garages or sheds not occupied as dwelling units or not part of the main structure. For a substantial improvement, the actual start of construction means the first alteration of any wall, ceiling, floor, or other structural part of a building, whether or not that alteration affects the external dimensions of the building.

(36) **STRUCTURE** - means a walled and roofed building, including a gas or liquid storage tank, that is principally above ground, as well as a manufactured home.

(37) **SUBSTANTIAL DAMAGE** - means damage of any origin sustained by a structure whereby the cost of restoring the structure to its before damaged condition would equal or exceed 50 percent of the market value of the structure before the damage occurred.

(38) **SUBSTANTIAL IMPROVEMENT** - means any reconstruction, rehabilitation, addition, or other improvement of a structure, the cost of which equals or exceeds 50 percent of the market value of the structure before "start of construction" of the improvement. This includes structures which have incurred "substantial damage", regardless of the actual repair work performed. The term does not, however, include either:

- a. Any project for improvement of a structure to correct existing violations of state or local health, sanitary, or safety code specifications which have been identified by the local code enforcement official and which are the minimum necessary conditions or
- b. Any alteration of a "historic structure", provided that the alteration will not preclude the structure's continued designation as a "historic structure."

(39) **VARIANCE** - is a grant of relief to a person from the requirement of this ordinance when specific enforcement would result in unnecessary hardship. A variance, therefore, permits construction or development in a manner otherwise prohibited by this ordinance. (For full requirements see Section 60.6 of the National Flood Insurance Program regulations.).

(40) **VIOLATION** - means the failure of a structure or other development to be fully compliant with the community's flood plain management regulations. A structure or other

development without the elevation certificate, other certifications, or other evidence of compliance required in Section 60.3(b)(5), (c)(4), (c)(10), (d)(3), (e)(2), (e)(4), or (e)(5) is presumed to be in violation until such time as that documentation is provided.

(41) **WATER SURFACE ELEVATION** - means the height, in relation to the National Geodetic Vertical Datum (NGVD) of 1929 (or other datum, where specified), of floods of various magnitudes and frequencies in the flood plains of coastal or riverine areas.

CHAPTER 25-3

GENERAL PROVISIONS

- 25-3-101. Lands to which this Ordinance Applies.
- 25-3-102. Basis for Establishing the Areas of Special Flood Hazards.
- 25-3-103. Establishment of a Development Permit.
- 25-3-104. Compliance.
- 25-3-105. Abrogation and Greater Restrictions.
- 25-3-106. Interpretation.
- 25-3-107. Warning and Disclaimer of Liability.

25-3-101. LANDS TO WHICH THIS ORDINANCE APPLIES.

The ordinance shall apply to all areas of special flood hazard within the jurisdiction of West Valley City.

25-3-102. BASIS FOR ESTABLISHING THE AREAS OF SPECIAL FLOOD HAZARDS.

The areas of special flood hazard identified by the Federal Emergency Management Agency in a scientific and engineering report entitled, "The Flood Insurance Study for West Valley City," dated September 25, 2009, with an accompanying Flood Insurance Rate Maps and Flood Boundary-Floodway Maps (FIRM and FBFM), and any revisions thereto are hereby adopted by reference and declared to be part of this ordinance. The Flood Insurance Study and FIRM and FBFM are on file in the office of the West Valley City Public Works Department. West Valley City shall automatically adopt effective FEMA Flood Insurance Rate Maps and effective FEMA Flood Insurance Studies.

25-3-103. ESTABLISHMENT OF A DEVELOPMENT PERMIT.

A Development Permit shall be required to ensure conformance with the provisions of this ordinance.

25-3-104. COMPLIANCE.

No structure or land shall hereafter be located, altered, or have its use changed without full compliance with the terms of this ordinance and other applicable regulations.

25-3-105. ABROGATION AND GREATER RESTRICTIONS.

This ordinance is not intended to repeal, abrogate, or impair any existing easements, covenants, or deed restrictions. However, where this ordinance and another ordinance, easement, covenant, or deed restriction conflict or overlap, whichever imposes the more stringent restrictions shall prevail.

1134 **25-3-106. INTERPRETATION.**

1135 In the interpretation and application of this ordinance, all provisions shall be:

- 1136 (1) Considered as minimum requirements;
- 1137 (2) Liberally construed in favor of the City; and
- 1138 (3) Deemed neither to limit nor repeal any other powers granted under state statutes.

1139 **25-3-107. WARNING AND DISCLAIMER OF LIABILITY.**

1140 The degree of flood protection required by this ordinance is considered reasonable for regulatory

1141 purposes and is based on scientific and engineering considerations. On rare occasions greater floods can

1142 and will occur and flood heights may be increased by man-made or natural causes. This ordinance does

1143 not imply that land outside the areas of special flood hazards or uses permitted within such areas will be

1144 free from flooding or flood damages. This ordinance shall not create liability on the part of the City, any

1145 official, or employee thereof for any flood damages that result from reliance on this ordinance or any

1146 administrative decision lawfully made thereunder.

1147 **CHAPTER 25-4**

1148 **ADMINISTRATION**

1149

1150

- 1151 25-4-101. Designation of City Engineer as Flood Plain Administrator.
- 1152 25-4-102. Duties and Responsibilities of the Flood Plain Administrator.
- 1153 25-4-103. Permit Procedures.
- 1154 25-4-104. Variance Procedures.
-

1155 **25-4-101. DESIGNATION OF CITY ENGINEER AS FLOOD PLAIN ADMINISTRATOR.**

1156 The City Engineer is hereby appointed the Flood plain Administrator to administer and

1157 implement the provisions of this ordinance and other appropriate sections of 44 CFR (National Flood

1158 Insurance Program Regulations) pertaining to flood plain management.

1159 **25-4-102. DUTIES AND RESPONSIBILITIES OF THE FLOOD PLAIN**

1160 **ADMINISTRATOR.**

1161 Duties and responsibilities of the Flood plain Administrator shall include, but not be limited to,

1162 the following:

- 1163
- 1164 (1) Maintain and hold open for public inspection all records pertaining to the provisions of this
- 1165 ordinance.
- 1166 (2) Review permit application to determine whether proposed building site, including the placement
- 1167 of manufactured homes, will be reasonably safe from flooding.
- 1168
- 1169 (3) Review, approve or deny all applications for development permits required by adoption of this
- 1170 ordinance.
- 1171 (4) Review permits for proposed development to assure that all necessary permits have been obtained
- 1172 from those Federal, State or local governmental agencies (including Section 404 of the Federal
- 1173 Water Pollution Control Act Amendments of 1972, 33 U.S.C. 1334) from which prior approval is
- 1174 required.
- 1175 (5) Where interpretation is needed as to the exact location of the boundaries of the areas of special
- 1176 flood hazards (for example, where there appears to be a conflict between a mapped boundary and
- 1177 actual field conditions) the Flood plain Administrator shall make the necessary interpretation.

- (6) Notify, in riverine situations, adjacent communities and the State Coordinating Agency which the National Flood Insurance Program Coordinator, prior to any alteration or relocation of a watercourse, and submit evidence of such notification to the Federal Emergency Management Agency.
- (7) Assure that the flood carrying capacity within the altered or relocated portion of any watercourse is maintained.
- (8) When base flood elevation data has not been provided in accordance with Section 25-3-103, the Flood plain Administrator shall obtain, review and reasonably utilize any base flood elevation data and floodway data available from a Federal, State or other source, in order to administer the provisions of Chapter 25-5.
- (9) When a regulatory floodway has not been designated, the Flood plain Administrator must require that no new construction, substantial improvements, or other development (including fill) shall be permitted within Zones A1-30 and AE on the community's FIRM, unless it is demonstrated that the cumulative effect of the proposed development, when combined with all other existing and anticipated development, will not increase the water surface elevation of the base flood more than one foot at any point within the community.
- (10) Under the provisions of 44 CFR Chapter 1, Section 65.12, of the National Flood Insurance Program regulations, a community may approve certain development in Zones A1-30, AE, AH, on the community's FIRM which increases the water surface elevation of the base flood by more than one foot, provided that the community first applies for a conditional FIRM revision through FEMA (Conditional Letter of Map Revision).

25-4-103. PERMIT PROCEDURES.

Application for a Development Permit shall be presented to the City Engineer on forms furnished by him/her and may include, but not be limited to, plans in duplicate drawn to scale showing the location, dimensions, and elevation of proposed landscape alterations, existing and proposed structures, including the placement of manufactured homes, and the location of the foregoing in relation to areas of special flood hazard. Additionally, the following information is required:

- (1) Elevation (in relation to mean sea level), of the lowest floor (including basement) of all new and substantially improved structures;
- (2) Elevation in relation to mean sea level to which any nonresidential structure shall be flood-proofed;
- (3) A certificate from a registered professional engineer or architect that the nonresidential flood-proofed structure shall meet the flood-proofing criteria of Section 25-5-102(2);
- (4) Description of the extent to which any watercourse or natural drainage will be altered or relocated as a result of proposed development.
- (5) Maintain a record of all such information in accordance with Chapter 4, Section 25-4-102(1).

Approval or denial of a Development Permit by the Flood plain Administrator shall be based on all of the provisions of this ordinance and the following relevant factors:

- (1) The danger to life and property due to flooding or erosion damage;
- (2) The susceptibility of the proposed facility and its contents to flood damage and the effect of such damage on the individual owner;
- (3) The danger that materials may be swept onto other lands to the injury of others;
- (4) The compatibility of the proposed use with existing and anticipated development;
- (5) The safety of access to the property in times of flood for ordinary and emergency vehicles;
- (6) The costs of providing governmental services during and after flood conditions including maintenance and repair of streets and bridges, and public utilities and facilities such as sewer, gas,

- electrical and water systems;
- (7) The expected heights, velocity, duration, rate of rise and sediment transport of the flood waters and the effects of wave action, if applicable, expected at the site;
- (8) The necessity to the facility of a waterfront location, where applicable;
- (9) The availability of alternative locations, not subject to flooding or erosion damage, for the proposed use;
- (10) The relationship of the proposed use to the comprehensive plan for that area.

25-4-104. VARIANCE PROCEDURES.

- (1) The appeal Board as established by the community shall hear and render judgment on requests for variances from the requirements of this ordinance.
- (2) The Appeal Board shall hear and render judgment on an appeal only when it is alleged there is an error in any requirement, decision, or determination made by the Flood plain Administrator in the enforcement or administration of this ordinance.
- (3) Any person or persons aggrieved by the decision of the Appeal Board may appeal such decision in the courts of competent jurisdiction.
- (4) The Flood plain Administrator shall maintain a record of all actions involving an appeal and shall report variances to the Federal Emergency Management Agency upon request.
- (5) Variances may be issued for the reconstruction, rehabilitation or restoration of structures listed on the National Register of Historic Places or the State Inventory of Historic Places, without regard to the procedures set forth in the remainder of this ordinance.
- (6) Variances may be issued for new construction and substantial improvements to be erected on a lot of one-half acre or less in size contiguous to and surrounded by lots with existing structures constructed below the base flood level, providing the relevant factors in Section 25-4-103(2) have been fully considered. As the lot size increases beyond the one-half acre, the technical justification required for issuing the variance increases.
- (7) Upon consideration of the factors noted above and the intent of this ordinance, the Appeal Board may attach such conditions to the granting of variances as it deems necessary to further the purpose and objectives of this ordinance (Section 25-1-102).
- (8) Variances shall not be issued within any designated floodway if any increase in flood levels during the base flood discharge would result.
- (9) Variances may be issued for the repair or rehabilitation of historic structures upon a determination that the proposed repair or rehabilitation will not preclude the structure's continued designation as a historic structure and the variance is the minimum necessary to preserve the historic character and design of the structure.
- (10) Prerequisites for granting variances:
- a. Variances shall only be issued upon a determination that the variance is the minimum necessary, considering the flood hazard, to afford relief.
 - b. Variances shall only be issued upon:
 - i. showing a good and sufficient cause;
 - ii. a determination that failure to grant the variance would result in exceptional hardship to the applicant, and
 - iii. a determination that the granting of a variance will not result in increased flood heights, additional threats to public safety, extraordinary public expense, create nuisances, cause fraud on or victimization of the public, or conflict with existing local laws or ordinances.
 - c. Any application to whom a variance is granted shall be given written notice that the structure will be permitted to be built with the lowest floor elevation below the base flood elevation, and that the cost of flood insurance will be commensurate with the increased risk resulting from the reduced lowest floor elevation.

- (11) Variances may be issued by a community for new construction and substantial improvements and for other development necessary for the conduct of a functionally dependent use provided that:
- the criteria outlined in Section 25-4-104 (1)-(9) are met, and
 - the structure or other development is protected by methods that minimize flood damages during the base flood and create no additional threats to public safety.

CHAPTER 25-5

PROVISIONS FOR FLOOD HAZARD REDUCTION

25-5-101.	General Standards.
25-5-102.	Specific Standards.
25-5-103.	Standards for Subdivision Proposals.
25-5-104.	Standards for areas of Shallow Flooding (AO/AH zones).
25-5-105.	Floodways.

25-5-101. GENERAL STANDARDS.

In all areas of special flood hazards the following provisions are required for all new construction and substantial improvements:

- (1) All new construction or substantial improvements shall be designed (or modified) and adequately anchored to prevent flotation, collapse or lateral movement of the structure resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy;
- (2) All new construction or substantial improvements shall be constructed by methods and practices that minimize flood damage;
- (3) All new construction or substantial improvements shall be constructed with materials resistant to flood damage;
- (4) All new construction or substantial improvements shall be constructed with electrical, heating, ventilation, plumbing, and air conditioning equipment and other service facilities that are designed and/or located so as to prevent water from entering or accumulating within the components during conditions of flooding.
- (5) All new and replacement water supply systems shall be designed to minimize or eliminate infiltration of flood waters into the system;
- (6) New and replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of flood waters into the system and discharge from the systems into flood waters; and,
- (7) On-site waste disposal systems shall be located to avoid impairment to them or contamination from them during flooding.

25-5-102. SPECIFIC STANDARDS.

In all areas of special flood hazards where base flood elevation data has been provided as set forth in Section 25-3-102; Section 25-4-102(8); or Section 25-5-103(3). The following provisions are required:

- (1) Residential Construction - new construction and substantial improvement of any residential structure shall have the lowest floor (including basement), elevated to a minimum of one foot above the base flood elevation. A registered professional engineer, architect, or land surveyor shall submit a certification to the Flood plain Administrator that the standard of this subsection as proposed in Section 25-4-103(1), is satisfied.

- (2) Nonresidential Construction - new construction and substantial improvements of any commercial, industrial or other nonresidential structure shall either have the lowest floor (including basement) elevated to a minimum of one foot above the base flood level or together with attendant utility and sanitary facilities, be designed so that below the base flood level the structure is watertight with walls substantially impermeable to the passage of water and with structural components having the capability of resisting hydrostatic and hydrodynamic loads and effects of buoyancy. A registered professional engineer or architect shall develop and/or review structural design, specifications, and plans for the construction, and shall certify that the design and methods of construction are in accordance with accepted standards of practice as outlined in this subsection. A record of such certification which includes the specific elevation (in relation to mean sea level) to which such structures are flood-proofed shall be maintained by the Flood plain Administrator.
- (3) Enclosures - new construction and substantial improvements, with fully enclosed areas below the lowest floor that are usable solely for parking of vehicles, building access or storage in an area other than a basement and which are subject to flooding shall be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwaters. Designs for meeting this requirement must either be certified by a registered professional engineer or architect or meet or exceed the following minimum criteria:
- a. A minimum of two openings having a total net area of not less than one square inch for every square foot of enclosed area subject to flooding shall be provided.
 - b. The bottom of all openings shall be no higher than one foot above grade.
 - c. Openings may be equipped with screens, louvers, valves, or other coverings or devices provided that they permit the automatic entry and exit of floodwaters.
- (4) Manufactured Homes:
- a. Require that all manufactured homes to be placed within Zone A on a community's FHBM or FIRM shall be installed using methods and practices which minimize flood damage. For the purposes of this requirement, manufactured homes must be elevated and anchored to resist flotation, collapse, or lateral movement. Methods of anchoring may include, but are not limited to, use of over-the-top or frame ties to ground anchors. This requirement is in addition to applicable State and local anchoring requirements for resisting wind forces.
 - b. Require that manufactured homes that are placed or substantially improved within Zones A1-30, AH, and AE on the community's FIRM on sites (i) outside of a manufactured home park or subdivision, (ii) in a new manufactured home park or subdivision, (iii) in an expansion to an existing manufactured home park or subdivision, or (iv) in an existing manufactured home park or subdivision on which a manufactured home has incurred "substantial damage" as a result of a flood, be elevated on a permanent foundation such that the lowest floor of the manufactured home is elevated to a minimum of one foot the base flood elevation and be securely anchored to an adequately anchored foundation system to resist flotation, collapse, and lateral movement.
 - c. Require that manufactured homes be placed or substantially improved on sites in an existing manufactured home park or subdivision with Zones A1-30, AH and AE on the community's FIRM that are not subject to the provisions of paragraph (4) of this section be elevated so that either:
 - i. the lowest floor of the manufactured home is a minimum of one foot above the base flood elevation, or
 - ii. the manufactured home chassis is supported by reinforced piers or other foundation elements of at least equivalent strength that are no less than 36 inches in height above grade and be securely anchored to an adequately anchored foundation system to resist flotation, collapse, and lateral movement.
- (5) Recreational Vehicles - Require that recreational vehicles placed on sites within Zones A1-30, AH, and AE on the community's FIRM either:

- a. be on the site for fewer than 180 consecutive days,
- b. be fully licensed and ready for highway use, or
- c. meet the permit requirements of Section 25-4-103(1), and the elevation and anchoring requirements for "manufactured homes" in paragraph (4) of this section. A recreational vehicle is ready for highway use if it is on its wheels or jacking system, is attached to the site only by quick disconnect type utilities and security devices, and has no permanently attached additions.

25-5-103. STANDARDS FOR SUBDIVISION PROPOSALS.

- (1) All subdivision proposals including the placement of manufactured home parks and subdivisions shall be consistent with Chapter 25-1 of this ordinance.
- (2) All proposals for the development of subdivisions including the placement of manufactured home parks and subdivisions shall meet Development Permit requirements of Section 25-3-103, Section 25-4-103, and the provisions of Chapter 25-5 of this ordinance.
- (3) Base flood elevation data shall be generated for subdivision proposals and other proposed development including the placement of manufactured home parks and subdivisions which is greater than 50 lots or 5 acres, whichever is lesser, if not otherwise provided pursuant to Section 25-3-102 or Section 25-4-102(8) of this ordinance.
- (4) All subdivision proposals including the placement of manufactured home parks and subdivisions shall have adequate drainage provided to reduce exposure to flood hazards.
- (5) All subdivision proposals including the placement of manufactured home parks and subdivisions shall have public utilities and facilities such as sewer, gas, electrical and water systems located and constructed to minimize or eliminate flood damage.

25-5-104. STANDARDS FOR AREAS OF SHALLOW FLOODING (AO/AH ZONES).

Located within the areas of special flood hazard established in Section 25-3-102, are areas designated as shallow flooding. These areas have special flood hazards associated with base flood depths of 1 to 3 feet where a clearly defined channel does not exist and where the path of flooding is unpredictable and where velocity flow may be evident. Such flooding is characterized by ponding or sheet flow; therefore, the following provisions apply:

- (1) All new construction and substantial improvements of residential structures have the lowest floor (including basement) elevated above the highest adjacent grade at least as high as the depth number specified in feet on the community's FIRM (at least two feet if no depth number is specified).
- (2) All new construction and substantial improvements of non-residential structures;
 - a. have the lowest floor (including basement) elevated above the highest adjacent grade at least as high as the depth number specified in feet on the community's FIRM (at least two feet if no depth number is specified), or;
 - b. together with attendant utility and sanitary facilities be designed so that below the base flood level the structure is watertight with walls substantially impermeable to the passage of water and with structural components having the capability of resisting hydrostatic and hydrodynamic loads of effects of buoyancy.
- (3) A registered professional engineer or architect shall submit a certification to the Flood plain Administrator that the standards of this Section, as proposed in Section 25-4-103(1), are satisfied.
- (4) Require within Zones AH or AO adequate drainage paths around structures on slopes, to guide flood waters around and away from proposed structures.

1420 **25-5-105. FLOODWAYS.**

1421 Floodways - located within areas of special flood hazard established in Section 25-3-102, are
1422 areas designated as floodways. Since the floodway is an extremely hazardous area due to the velocity of
1423 flood waters which carry debris, potential projectiles and erosion potential, the following provisions shall
1424 apply:

- 1425
- 1426 (1) Encroachments are prohibited, including fill, new construction, substantial improvements and
1427 other development within the adopted regulatory floodway unless it has been demonstrated
1428 through hydrologic and hydraulic analyses performed in accordance with standard engineering
1429 practice that the proposed encroachment would not result in any increase in flood levels within
1430 the community during the occurrence of the base flood discharge.
 - 1431 (2) If Section 25-5-105(1) above is satisfied, all new construction and substantial improvements shall
1432 comply with all applicable flood hazard reduction provisions of Chapter 25-5.
 - 1433 (3) Under the provisions of 44 CFR Chapter 1, Section 65.12, of the National Flood Insurance
1434 Regulations, a community may permit encroachments within the adopted regulatory floodway
1435 that would result in an increase in base flood elevations, provided that the community first applies
1436 for a conditional FIRM and floodway revision through FEMA.
- 1437

1438 **Section 4. Severability.** If any provision of this Ordinance is declared to be invalid by a court of
1439 competent jurisdiction, the remainder shall not be affected thereby.

1440 **Section 5. Effective Date.** This Ordinance shall take effect immediately upon posting in the
1441 manner required by law.

PASSED and APPROVED this _____ day of _____, 2009.

WEST VALLEY CITY

MAYOR

ATTEST:

CITY RECORDER